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PAPER NUMBER

APPLICATION NO. FIRST NAMED INVENTOR FILING DATE ATTORNEY DOCKET NO. CONFIRMATION N 10/664,291 09/17/2003 Marc Bryan Center GP-302568 4567 09/21/2004 EXAMINER WOLFE JR, WILLIS RAY

CHRISTOPHER DEVRIES General Motors Corporation Legal Staff, Mail Code 482-C23-B21 P.O. Box 300 Detroit, MI 48265-3000

3747 DATE MAILED: 09/21/2004

ART UNIT

Please find below and/or attached an Office communication concerning this application or proceeding.

	Α	pplication No.	Applicant(s)	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
	1	10/664,291 CENTER, MARC BRYAN		
Office Action Summa	ary E	xaminer	Art Unit	
		/illis R. Wolfe, Jr.	3747	
The MAILING DATE of this communication appears on the cover sheet with the correspondence address				
Period for Reply		OFT TO EVEIDE 41	MONTH(S) EDOM	
A SHORTENED STATUTORY PER THE MAILING DATE OF THIS COM - Extensions of time may be available under the pafter SIX (6) MONTHS from the mailing date of 1. If the period for reply specified above is less that If NO period for reply is specified above, the material Failure to reply within the set or extended period Any reply received by the Office later than three earned patent term adjustment. See 37 CFR 1.	MMUNICATION. provisions of 37 CFR 1.136(a this communication. In thirty (30) days, a reply will a simum statutory period will a dror reply will, by statute, cau months after the mailing date.). In no event, however, may a hin the statutory minimum of th pply and will expire SIX (6) MO use the application to become	a reply be timely filed nirty (30) days will be considered time DNTHS from the mailing date of this ABANDONED (35 U.S.C. § 133).	ely. communication.
Status				
1) Responsive to communication	n(s) filed on	•		
2a) This action is FINAL .	·			
3) Since this application is in co	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is			
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.				
Disposition of Claims		*	16 0	
4)⊠ Claim(s) <u>1-21</u> is/are pending	in the application.			
4a) Of the above claim(s) is/are withdrawn from consideration.				
5) Claim(s) is/are allowed.				
6)⊠ Claim(s) <u>1-10 and 14-21</u> is/are rejected.				
7) Claim(s) <u>11-13</u> is/are objecte			,	
8) Claim(s) are subject to	o restriction and/or e	lection requirement.		
Application Papers	•	•	* 90	
9) The specification is objected t	to by the Examiner.			
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.				
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).				
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).				
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.				
Priority under 35 U.S.C. § 119			K	
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).				
a) ☐ All b) ☐ Some * c) ☐ None of:				
1. Certified copies of the priority documents have been received.				
2. Certified copies of the priority documents have been received in Application No				
3. Copies of the certified copies of the priority documents have been received in this National Stage				
application from the International Bureau (PCT Rule 17.2(a)).				
* See the attached detailed Office action for a list of the certified copies not received.				
Attachment(s) 1) Notice of References Cited (PTO-892)	•	4) ☐ Intervie	w Summary (PTO-413)	
2) Notice of Draftsperson's Patent Drawing		Paper N	No(s)/Mail Date	70 452)
3) Information Disclosure Statement(s) (PTO Paper No(s)/Mail Date		5)	of Informal Patent Application (F	10-154)
r aper rio(s)/ivian Date	<u> </u>	-,	-	

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8 and 17-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Geyer. Note Figures 3, 4 and 6 and column 6, line 62 through column 7, line 20.

Claims 1, 2, 17 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Schell. Note Figure 5, column 3, lines 38-54 and column 10, lines 47-58.

Claims 1-8 and 17-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Mazur. Note Figure 3 and column 3, line 35 through column 4, line 23.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9, 10 and 14-16 are rejected under 35 U.S.C. 103(a) as being a unpatentable over Seki et al in view of Schell. Seki et al discloses the claimed invention except for the utilization of a nitrogen oxide sensor. Schell teaches that it is known to substitute a nitrogen oxide sensor for monitoring the exhaust gas as set forth at column 10, lines 47-58. It would have been obvious to one having ordinary skill in the art at the time the invention was made to the exhaust gas sensor of Seki et al by providing a nitrogen oxide sensor as taught by Schell in order to better control the valve timing in order to aid in the prevention of nitrogen oxides in the exhaust gas.

Allowable Subject Matter

Claims 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references of Kobayashi et al, Yoshioka et al, Suzuki and Currie et al are cited to show EGR valves controlled by oxygen sensors. The reference of Nissan is cited to show valve timing controlled by an air-fuel ratio sensor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willis R. Wolfe, Jr. whose telephone number is (703) 308-1950. The examiner can normally be reached on Tuesday, Wednesday and Friday (4:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry C. Yuen can be reached on (703) 308-1946. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Willis R. Wolfe, Jr. Primary Examiner Art Unit 3747

WRW September 17, 2004